

A N
A C C O U N T
O F T H E
L I F E A N D W R I T I N G S
O F T H E L A T E
WILLIAM HUNTER, M.D.F.R.S. and S.A.
MEMBER of the ROYAL COLLEGE of PHYSICIANS,
PHYSICIAN EXTRAORDINARY to the QUEEN,
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A N D
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One of the FOREIGN ASSOCIATES of the ROYAL ACADEMY
OF SCIENCES, and of the ROYAL MEDICAL SOCIETY
at PARIS, &c.
Read, on the 6th of August 1783,
At a General Meeting of the
SOCIETY of PHYSICIANS of LONDON,
Of which He was
P R E S I D E N T,
And published at their Request.

B Y
SAMUEL FOART SIMMONS, M.D.F.R.S.
Member of the Royal College of Physicians, London;
Honorary Fellow of the Royal College of Physicians of
Lorraine; and one of the Foreign Associates
of the Royal Medical Society at Paris.

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T O

WILLIAM WATSON, M.D. V.P.R.S.

Trust. Br. Mus. &c.

P R E S I D E N T ;

WILLIAM GRANT, M.D. &c.

T R E A S U R E R ;

MAXWELL GARTHSHCRE, M.D.F.R.S.&c.

S E C R E T A R Y ;

AND THE OTHER MEMBERS OF THE
SOCIETY OF PHYSICIANS OF LONDON;

The following Tribute of Respect to the Memory of

D R . W I L L I A M H U N T E R ,

T H E I R L A T E P R E S I D E N T ,

I S W I T H G R E A T D E F E R E N C E I N S C R I B E D ,

B Y T H E I R A F F E C T I O N A T E C O L L E A G U E

A N D O B L I G E D H U M B L E S E R V A N T ,

S A M U E L F O A R T S I M M O N S .

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ADVERTISEMENT.

WHEN I engaged in the following Biographical Essay, at the request of the Society of Physicians, I was aware that without considerable assistance my account of Dr. Hunter would be very imperfect.—The information I wanted has been supplied by the kindness of different friends, to whom I embrace this opportunity of acknowledging my obligations.—For much of the early part of Dr. Hunter's history I am indebted to Dr. Cullen. Mr. Matthew Baillie has favoured me with an account of Dr. Hunter's unpublished writings, and with other materials. My thanks are due likewise

vi ADVERTISEMENT.

wife to Dr. Pitcairn, Dr. Bromfield, Dr. Denman, Mr. John Hunter, Mr. Henry Watson, and Mr. Charles Combe, for different communications, of which I have availed myself in the course of the work.

E R R A T A.

P. 3, & 13, *for fat out, read fet out.*

P. 15, *in the note concerning Dr. Sandys, after the word died, add in 1771.*

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O F T H E L A T E
WILLIAM HUNTER, M.D.

WILLIAM HUNTER was born on the 23d of May, 1718, at Kilbride, in the county of Lanerk. He was the seventh of ten children* of John and Agnes Hunter, who resided

* These were John, Elizabeth, Andrew, Janet, James, Agnes, William, Dorothea, Isabella, and John. Of the Sons, John the eldest, and Andrew died young; James, born in 1715, was a writer to the signet at Edinburgh, who, disliking the profession of the law, came to London in 1743, with an intention to study anatomy under his brother William, but was prevented from pursuing this plan by ill health, which induced him to return to Long Calderwood, where he died soon after, aged 28

A years;

sided on a small estate in that parish, called Long Calderwood, which had long been in the possession of his family. His great grandfather, by his father's side, was a younger son of Hunter of Hunterston, chief of the family of that name.

At the age of fourteen his father sent him to the college of Glasgow. In this seminary he passed five years, and by his prudent behaviour and diligence acquired the esteem of the professors, and the reputation of being a good scholar.

His father had designed him for the church, but the idea of subscribing to articles of faith, was so repugnant to the liberal mode of thinking he had already adopted, that he felt an insuperable aversion to his theological pursuits. In this state of mind he happened to become acquainted with Dr. Cullen, the present cele-

years; John, the youngest, is the present celebrated anatomist.—Of the daughters, Elizabeth, Agnes, and Isabella, died young; Janet married Mr. Buchanan of Glasgow, and died in 1749; Dorothea, who is still living, married the late Rev. James Baillie, D.D. professor of divinity in the university of Glasgow, by whom she has a son Matthew Baillie, of Baliol College, Oxford, B. A. and two daughters.

brated

brated professor at Edinburgh, who was then just established in practice at Hamilton, under the patronage of the Duke of Hamilton. Dr. Cullen's conversation soon determined him to lay aside all thoughts of the church, and to devote himself to the profession of physic.

His father's consent having been previously obtained, Mr. Hunter, in 1737, went to reside with Dr. Cullen. In the family of this excellent friend and preceptor he passed nearly three years, and these, as he has been often heard to acknowledge, were the happiest years of his life. It was then agreed, that he should go and prosecute his medical studies at Edinburgh and London, and afterwards return to settle at Hamilton, in partnership with Dr. Cullen.

Speaking to me of the manners and disposition of his friend at this period Dr. Cullen observed, that his conversation was remarkably lively and agreeable, and his whole conduct at the same time more strictly and steadily correct than that of any other young person he had ever known. The same chearfulness and the same regard for prudence accompanied him through life.

He set out for Edinburgh in November 1740, and continued there till the following spring,

attending the lectures of the medical professors, and amongst others those of the late Dr. Alexander Monro, who many years afterwards in allusion to this circumstance styled himself his "old master *."

Mr. Hunter arrived in London in the summer of 1741, and took up his residence at Mr. afterwards Dr. Smellie's, who was at that time an apothecary in Pall-mall. He brought with him a letter of recommendation to his countryman Dr. James Douglas, from Mr. Foulis, printer at Glasgow, who had been useful to the doctor in collecting for him different editions of Horace †. Dr. Douglas was then intent on a great anatomical work on the bones, which he did not live to complete, and was looking out for a young man of abilities and industry whom

* Supplement to the Med. Comment.

† Dr. Douglas, with great industry and expence, in the course of a number of years, made a collection of all the editions of Horace which had been published from the year 1476 to the year 1739. Dr. Harwood, who mentions this circumstance in his View of the various editions of the Greek and Roman classics, observes, that this one author alone, thus multiplied, must have constituted a very considerable library. A very accurate detail of these different editions is prefixed to the first volume of Watson's Horace.

he might employ as a dissector. This induced him to pay particular attention to Mr. Hunter, and finding him acute and sensible, he desired him to make him another visit. A second conversation confirmed the doctor in the good opinion he had formed of Mr. Hunter, and without any farther hesitation he invited him into his family to assist in his dissections, and to superintend the education of his son.

Mr. Hunter having communicated this offer to his father and Dr. Cullen, the latter readily and heartily gave his concurrence to it; but his father, who was very old and infirm, and expected his return with impatience, consented with reluctance to a scheme the success of which he thought precarious. By the favour of Dr. Hunter's executors, I have seen the letter he wrote on this occasion to his son. In this letter he says, "Nothing has proved a greater comfort
 " than the hopes of seeing you here soon; but
 " your letter has cast a very great damp upon
 " us all. I think you have been in a very extraordinary manner obliged to Dr. Douglas,
 " and whatever opinion I may have of his present offer, or however unwilling I may be to
 " consent to it, still I must thankfully own it,
 " as a particular instance of his kindness to you.

" I

“ I surely must soon expect to be beyond this
 “ side of time, considering my age and present
 “ indisposition, being for some days past con-
 “ fined to my bed with sickness, and a severe
 “ fit of the gravel, and would be glad to have
 “ you near me for the little while I shall be in
 “ this world; though at the same time I should
 “ be sorry to hinder you from making your
 “ way in the world, the best way you can.—I
 “ wish you to consider well what you do.—
 “ With Dr. Cullen you may be very comfort-
 “ ably settled, and make money, and if you
 “ miss this opportunity now, you cannot be
 “ sure of it at another time.—Dr. Douglas’s
 “ kind offer is only for a time. He may die
 “ before you come home or are settled, and
 “ leave you without friends at a great enough
 “ uncertainty. I suppose now you know very well
 “ the difference between the expence of living
 “ at home and abroad, and that perhaps cloaths
 “ and pocket-money may cost you more than
 “ your whole expence at home would do. You
 “ know my willingness to assist you, but you
 “ know too, that already I have gone fully as
 “ far as my numerous family will allow of.—
 “ You must now do something for yourself.
 “ —Consider all these things, and if you can
 “ persuade

“ persuade me that it is for your good, I will
 “ not be against it.”

This was the language of a plain sensible man, anxious for the welfare of his son ; and although it failed to produce the effect he wished for, it probably served as an excitement to industry.

His father did not long survive the writing of this letter. It is dated at Long Calderwood, July 28, 1741, and he died on the 30th of October following, aged seventy-eight years.

Mr. Hunter having accepted Dr. Douglas's invitation was by his friendly assistance enabled to enter himself as a surgeon's pupil at Saint George's Hospital under Mr. James Wilkie, and as a dissecting pupil under Dr. Frank Nichols, who at that time taught anatomy with considerable reputation. He likewise attended a course of lectures on experimental philosophy by Dr. Desaguliers.

Of these means of improvement he did not fail to make a proper use. He soon became expert in dissection, and Dr. Douglas was at the expence of having several of his preparations engraved. But before many months had elapsed, he had the misfortune to lose this excellent

cellent friend. Dr. Douglas died on the first of April, 1742, in his 67th year, leaving a widow * and two children.

This event, the probability of which his father had pointed out to him, does not seem to have retarded his progress. Such a loss, and at so critical a period, would probably have destroyed the hopes of any man of less abilities or industry than he possessed. But he seems by this time to have had a consciousness of the superiority of his talents, and he who feels himself equal to great things will not easily be dismayed.

* Mrs. Douglas survived her husband till May 5, 1752, when she departed this life at the age of 63 years. Her daughter, Jane Martha Douglas, died in 1744, aged 28; her son, James Douglas, who set out in life with the fairest prospect, ruined himself by his indiscretion, and died about the year 1755, aged 30 years. It has been injuriously reported of Dr. Hunter, that he suffered his friend's son to languish in poverty, without administering to his wants. The truth is, that Dr. Hunter, after lending him at different times a larger sum than he could conveniently spare, was obliged to abandon him to his imprudence. Mr. Douglas's notes of hand to the amount of about 100*l.* are in the possession of Dr. Hunter's executors.

The

The death of Dr. Douglas made no change in his situation. He continued to reside with the doctor's family, and to pursue his studies with the same diligence as before.

In 1743 he communicated to the Royal Society an Essay on the Structure and Diseases of articulating Cartilages*. This ingenious paper, on a subject which till then had not been sufficiently investigated, affords a striking testimony of the rapid progress he had made in his anatomical inquiries.

After some fruitless attempts by macerating and boiling cartilages in different menstrua, he had fallen upon a method not only of bringing their fibrous texture to view, but of tracing the direction and arrangement of those fibres. He found that when an articulating cartilage was well prepared, it felt soft, and yielded to the touch, but restored itself to its former equality of surface when the pressure was taken off. This surface, when viewed through a glass, appeared like a piece of velvet. Thus he compared the texture of a cartilage to the pile of velvet, its fibres rising up from the bone, as the silky threads of that rise from the woven cloth or

* Phil. Transf. vol. XLII.

basis. These perpendicular fibres he considered as forming the greatest part of the cartilaginous substance, but he was of opinion that there are likewise transverse fibres, which connect them and make the whole a solid body, though these last are not easily seen, because, being very tender, they are destroyed in preparing the cartilages.

As he had it in contemplation to teach Anatomy, his attention was directed principally to this object; and it deserves to be mentioned as an additional mark of his prudence, that he did not precipitately engage in this attempt, but passed several years in acquiring such a degree of knowledge, and such a collection of preparations as might insure him success.

Dr. Nichols, to whom he communicated his scheme, and who declined giving lectures about that time in favour of the late Dr. Lawrence, did not give him much encouragement to prosecute it. But at length an opportunity presented itself for the display of his abilities as a teacher.

A society of navy surgeons had an apartment in Covent Garden, where they engaged the late Mr. Samuel Sharpe to deliver a course of lectures on the operations of surgery. Mr. Sharpe continued to repeat this course, till finding that
it

it interfered too much with his other engagements, he declined the task in favour of Mr. Hunter, who gave the society so much satisfaction that they requested him to extend his plan to Anatomy, and at first he had the use of their room for his lectures. This happened in the winter of 1746.

He is said to have experienced much solicitude when he began to speak in public, but the applause he met with soon inspired him with courage; and by degrees he became so fond of teaching, that for many years before his death he was never happier than when employed in delivering a lecture.

The profits of his two first courses were considerable*, but by contributing to the wants of different

* My friend Mr. Watson, F. R. S. who was one of Mr. Hunter's earliest pupils, has told me that he accompanied him home after his introductory lecture. Mr. Hunter, who had received about seventy guineas from his pupils, and had got the money in a bag under his cloak, observed to Mr. Watson that it was a larger sum than he had ever been master of before.—Dr. Pulteney, in his life of Linnæus, has not thought it superfluous to record the slender beginning from which that great naturalist rose to ease and affluence in life. “*Exiit patria triginti sex nummis aureis dives*” are Linnæus's own

different friends, he found himself at the return of the next season obliged to defer his lectures for a fortnight, merely because he had not money enough to defray the necessary expence of advertisements. This circumstance, which he himself mentioned to me, taught him to be more reserved in this respect, particularly as he found that by thus distressing himself, he had only encouraged the idleness of his companions. As he had always an aversion to borrowing, he now determined to be cautious of lending money, and by adhering to this prudent rule, and strict œconomy, he was afterwards enabled to amass that great fortune of which he made so liberal a use.

In 1747† he was admitted a member of the Corporation of Surgeons, and in the spring of the following year*, soon after the close of his lec-

words. Anecdotes of this sort deserve to be recorded as an encouragement to young men, who with great merit possess but little advantages of fortune.

† August 6.

* I had some difficulty in ascertaining the date of this tour to the Continent, till Dr. Pitcairne recollected that Mr. Hunter brought him a copy of the *Codex Medicamentarius*, which was published at Paris just as he was setting out on his return home. The date of this work, which appeared in 1748, fixes the time of the excursion in question to that year.

tures, he set out in company with his pupil, Mr. James Douglas, on a tour through Holland to Paris.

Of this excursion to the Continent I have no anecdotes to relate, except that at Leyden he paid his respects to the celebrated Albinus, who amongst other things shewed him a preparation of the membrana pupillaris, and whose admirable injections, as he afterwards told Dr. Cullen, inspired him with a strong emulation to excel in that elegant and curious part of anatomy.

His lectures suffered no interruption by this journey, as he returned to England soon enough to prepare for his winter course, which began about the usual time.

At first he practised both surgery and midwifery, but to the former of these he had always an aversion. His patron, Dr. James Douglas, had acquired considerable reputation in midwifery, and this probably induced Mr. Hunter to direct his views chiefly to the same line of practice. His being elected one of the surgeon-men-midwives first † to the Middlesex, and soon afterwards ‥ to the British Lying-in Hospital, assisted in bringing him forward in this branch

† 1748.

‥ 1749.

of his profession, in which he was recommended by several of the most eminent surgeons of that time, who respected his anatomical talents and wished to encourage him.

But these were not the only circumstances that contributed to his success. He owed much to his abilities, and much to his person and manner, which eminently qualified him for the practice of midwifery, and soon gave him a decided superiority over his countryman Dr. Smellie, who, to the weight of great experience, united the reputation he had justly acquired by his lectures and writings: but his person is said to have been coarse, and his manner awkward and unpleasing, so that he never rose into any great estimation amongst persons of rank.

The most lucrative part of the practice of midwifery was at that time in the hands of Sir Richard Manningham and Dr. Sandys*. The former

* Francis Sandys, M. D. for some time professor of anatomy at Cambridge, was a most assiduous and able anatomist, and had a large collection of anatomical preparations. He had all the parts of the eye finely prepared and preserved, and elegantly expressed in drawings. He was also very curious in his injections, and discovered the art of making them pellucid with oil of turpentine.

former of these died, and the latter retired into the country a few years after Mr. Hunter began to be known in midwifery.—I have been the more particular in tracing these circumstances, as the fortune of his life seems to have turned chiefly on his success at this period.

Although by these incidents he was established in the practice of midwifery, it is well known that in proportion as his reputation increased, his opinion was eagerly sought after in all cases where any light concerning the seat or nature of the disease could be expected from an intimate knowledge of anatomy.

In 1750 he seems to have entirely relinquished his views in surgery, as in that year he obtained the degree of Doctor of Physic † from the University of Glasgow, and began to practise as a physician. About this time he quitted the family of Mrs. Douglas, and went to reside in Jermyn-street.

turpentine. Dr. Hunter, in his Medical Commentaries, mentions him as the discoverer of the *membrana pupillaris*. He died in a retired situation in Bedfordshire at a very advanced age. His collection was first in the possession of Mr. Bromfeild, and afterwards sold for 200 l. to Dr. Hunter.

† The diploma is dated Oct. 24, 1750.

In the summer of 1751 he re-visited his native country, for which he always retained a cordial affection. His mother ¶ was still living at Long Calderwood, which was now become his property by the death of his brother James. Dr. Cullen, for whom he always entertained a sincere regard, was then established at Glasgow §, and

¶ Mrs. Hunter died Nov. 3, 1751, aged 66 years.

§ In an erroneous account of Dr. Hunter, which has appeared in different prints, we are told, that about the time of his coming to London, Dr. Cullen, through the interest of a nobleman of high rank, was appointed to a Professorship in the University of Glasgow. But this is not true. Dr. Cullen remained at Hamilton till the year 1743, that is, two years after his friend had quitted it. The Duke of Hamilton, under whose patronage he had settled there, died in that year, leaving a successor, under age, and of course not likely soon to establish a family at Hamilton. This induced Dr. Cullen to remove to Glasgow. In the year 1744, at the desire of the university, and with the consent of the then Professor of Physic, he began to read on the Institutes and Practice of Physic, and a few years afterwards the professor resigned his chair to him. But in this matter no nobleman had any share. He owed his success solely to his own abilities and exertions. It is true, however, that while he was a professor at Glasgow, and employed in teaching chemistry, he had the honour of becoming known

and had acquired considerable reputation both as a practitioner and teacher of physic ; so that the two friends had the pleasure of being able to congratulate each other on their mutual prosperity.

During this visit he shewed his attachment to his little paternal inheritance, by giving many instructions for repairing and improving it, and for purchasing any adjoining lands that might be offered for sale. As he and Dr. Cullen were riding one day in a low part of the country, the latter, pointing out to him Long Calderwood at a considerable distance, remarked how conspicuous it appeared. " Well"—said he, with some degree of energy—" if I live I shall make it " still more conspicuous."

After this journey to Scotland, to which he devoted only a few weeks, he was never absent from London, unless his professional engagements, as sometimes happened, required his attendance at a distance from the capital.

In 1755, on the resignation of Dr. Layard, one of the physicians of the British Lying-in

known to the late Archibald Duke of Argyle, and by his Grace's patronage he procured, in the year 1755, a Professorship in the University of Edinburgh. The mistake seems to have originated in this circumstance.

Hospital, we find the governors of that institution voting their “ thanks to Dr. Hunter for the “ services he had done the hospital, and for his “ continuing in it as one of the physicians*,” so that he seems to have been established in this office without the usual form of an election. The year following† he was admitted a licentiate of the Royal College of Physicians, and soon afterwards was elected a member of the Medical Society. His history of an Aneurism of the Aorta appears in the first volume of their observations and inquiries published in 1757. Of this and his other essays in the different volumes of that collection, I shall here give some account, that it may be seen how much he contributed to its utility.

In the first volume, to the history of the aneurism just now mentioned, he has added some remarks on aneurisms in general. With a view to settle the disputes concerning the nature of diseases of this sort, he proposes a division of them into three kinds rather than into two, as had been commonly done by preceding writers.

* Extracted from the minutes of the Weekly Committee of the Hospital, dated June 20, 1755.

† Sept. 30, 1756.

Thus,

Thus, he observes, that aneurisms are either *true*, *false*, or *mixed*. The first of these species he ascribes to a dilatation, and the second to a rupture of the arterial coats; the third, he thinks, is brought on by both these causes united.—He proves from his own observation in five cases, that such a disease as the *true* aneurism may exist. This proposition, though generally allowed, had been denied by some authors, who had imagined that in every aneurism the arterial coats are not simply dilated, but ruptured.

In the course of these remarks Dr. Hunter first mentioned a particular species of aneurism, of which he afterwards* treated more at large. This disease, which till his account of it appeared had been totally overlooked, occurs where an artery has been opened through a vein, and a communication is afterwards kept up between the two vessels. At the suggestion of Dr. Cleg-horn|| it has since been distinguished by the name of *aneurismal varix*. As it soon comes to nearly a permanent state, it is of importance to be able to distinguish it from the common spurious aneurism, as the latter requires surgical

* Medical Observations and Inquiries, Vols. II. and IV.

|| Ibid. Vol. III.

assistance, while the aneurismal varix, if left to itself, is productive of no ill consequence. A knowledge of this disease must therefore be considered as a useful acquisition to surgery.

In the second volume we find several papers by Dr. Hunter. The first relates to an instance of emphysema, in which relief was obtained by scarifications. This case served to confirm the utility of a practice, which had been recommended by former writers, particularly by Ambrose Paré, who relates a memorable instance of its good effects.

To his description of this case Dr. Hunter adds some remarks on the cellular membrane and its diseases.—Haller has considered this membrane as the inorganic basis of all our organized and vascular solids; but Dr. Hunter, in this paper, observes, that as the inorganic stamina of the human body are too minute to be seen, it is impossible to determine their real nature with certainty; but he affirms, that all its visible parts are of a vascular texture.

He remarks, that the cellular membrane is of two kinds, reticular and adipose; and he differs from former anatomists, who had supposed, that the oil of the adipose membrane is lodged in the same cavities as the waters of the anasarca.

Wherever

Wherever there is fat in the human body, he thinks there is a particular organization or glandular apparatus superadded to the reticular membrane, consisting of vesicles for lodging the animal oil, as well as vessels fitted for its secretion; so that he compares the marrow in the bones to the glandular or follicular parts of the adipose membrane, and the net-work of bony fibres and laminæ, which supports the marrow, to the reticular membrane that is mixed with and supports the adeps.

In treating of the diseases of the cellular membrane, he mentions the anasarca. In cases of this sort the methods of discharging the water had been different. Some writers had recommended incisions of considerable length and depth; while others advised very small punctures. Dr. Hunter gives the preference to the latter, as being less painful, and less liable to inflammation and mortification. It seems that he had tried both these methods, one on each leg of the same patient, and by that means had clearly seen the advantage of the one method over the other.

In this paper we meet with a good description of the dropsy of the ovarium, a disease in which it had been proposed by some modern surgeons of great reputation to attempt a radical cure by incision

sion and suppuration, or by the excision of the cyst. Dr. Hunter, who was always cautious in adopting any new operation where the chance of success seemed inadequate to the certainty of danger, clearly proves that excision can hardly be attempted; and that incision and suppuration can be recommended only under very particular circumstances.

His other papers in this second volume are, 1. An account of a diseased Tibia, which shews that a callus will supply the place of a bone, and preserve the length and firmness of a limb, when the greatest part of the original bone is become useless, or thrown out by exfoliation; and 2. Remarks on the symphysis of the *Ossa Pubis*, which he describes as a composition of two cartilages and a ligament, somewhat like the connecting substance between the bodies of the *vertebræ*. Several cases that had occurred to him sufficiently proved, that in lying-in women there may be a cavity in the symphysis of the *ossa pubis*, and he considered this observation as one step towards explaining why matter is sometimes collected there.

In the fourth volume he relates a case, which served to confirm his own and M. de Haller's theory concerning the insensibility of tendons; and
in

in that and the fifth volumes he communicated his observations on the Retroverted Uterus. This disease, although it had been mentioned by M. Gregoire in his lectures at Paris, and my friend, M. Peyrilhe, the learned author of a History of Surgery*, thinks he has discovered some traces of it in the writings of the ancients, was certainly not understood till Dr. Hunter described it, first in his lectures in 1754, and afterwards in one of the volumes of the work in question, since which it has been generally known. It is worthy of observation, however, that within two years before the publication of that volume two pregnant women had lost their lives by this accident, in London. In both of these instances experienced practitioners saw with regret in the dead body what they might have easily cured in the living, if they had made a very obvious discovery in proper time.

The sixth volume, which is now in the press, will contain three papers written by Dr. Hunter. In one of these he describes three cases, by way of supplement to an instance communicated by Dr. Pulteney, of an extraordinary conformation of

* Histoire de la Chirurgie depuis son origine jusqu'à nos jours. Vol. II. 4to. Paris, 1780.

the heart. In the second paper he relates the history of an obstinate disease of the stomach cured by the use of milk in small quantities; and in the third he treats of the uncertainty of the signs of murder in the case of bastard children.

In 1762 we find him warmly engaged in controversy, supporting his claim to different anatomical discoveries, in a work entitled *Medical Commentaries*, the style of which is correct and spirited. As an excuse for the tardiness with which he brought forth this work, he observes in his introduction, that it required a good deal of time, and he had little to spare; that the subject was unpleasant, and therefore he was very seldom in the humour to take it up.

In this publication he confined himself chiefly to a dispute with the present learned professor of anatomy at Edinburgh, concerning injections of the testicle, the ducts of the lachrymal gland, the origin and use of the lymphatic vessels, and absorption by veins. He likewise defended himself against a reproach thrown upon him by Professor Monro, senior, by giving a concise account of a controversy he was involved in with Mr. Pott, concerning the discovery of the *Hernia Congenita*. It was not long before Mr. Pott
took

took occasion to give the public his account of the dispute; and, in reply, Dr. Hunter added a supplement to his Commentaries.

It has been observed of anatomists that they are all liable to the error of being severe on each other in their disputes. Dr. Hunter, whose own writings* afford us this remark, very pleasantly adds, that for any thing we know, the passive submission of dead bodies, their common objects, may render them less able to bear contradiction. “It is remarkable,”—says he,—“that there is scarce a considerable character in anatomy that is not connected with some warm controversy. Anatomists have ever been engaged in contention. And indeed, if a man has not such a degree of enthusiasm, and love of the art, as will make him impatient of unreasonable opposition, and of encroachments upon his discoveries and his reputation, he will hardly become considerable in anatomy, or in any other branch of natural knowledge.

“These reflections afford some comfort to me, who unfortunately have been already

* Supplement to the first part of Medical Commentaries.

“ engaged in two public disputes. I have imi-
 “ tated some of the greatest characters, in what
 “ is commonly reckoned their worst part; but
 “ I have also endeavoured to be useful; to im-
 “ prove and diffuse the knowledge of anatomy:
 “ and surely it will be allowed here, that if I
 “ have not been serviceable to the public in this
 “ way, it has not been for want of diligence or
 “ love of the service*.”

With regard to the injection of the testicle it
 may be remarked, that Dr. Monro filled the
tubuli testis with mercury in 1753; and that
 Dr. Hunter proves his having shewed a prepa-
 ration† of this kind at his lectures in 1752;
 but that Haller has since claimed the merit of
 having made and published this discovery so early
 as the year 1745‡.

* Supplement to the Medical Commentaries.

† Dr. Hunter acknowledges that it was Mr. Henry
 Watson who first shewed him the ducts coming out
 from the *testis* to form the *epididymis*, in a preparation
 where he had traced them by dissection with great ac-
 curacy. See Med. Com. p. 2.

‡ “ Hunterus se anno 1752 testem cum suis vasis
 “ argento vivo replevisse monet; nos anno 1745 de-
 “ scripseramus, et in programme Winklerianæ dispu-
 “ tationi addito, et in Philos. Transf.” Halleri *Bi-
 blioth. Anatom.*

The

The ducts of the lachrymal gland after the discovery of them in the ox, by Stenon, had been often observed both in that animal and in the sheep. Santorini and Winslow had even seen and described them in the human subject; but some of the most distinguished modern anatomists had sought for them in vain, so that their existence in man was still a subject of dispute when Dr. Hunter began to teach anatomy.

It appears that at his lectures in 1747 he introduced bristles into the ducts of this gland in the human subject. Dr. Monro did the same thing in 1753. The reputation that could be derived from this circumstance, was hardly adequate to the warmth with which it was claimed by either of the disputants. It could not be the reputation of a first discovery, it was merely the credit of having demonstrated that which had escaped the penetration of Morgagni and Haller.

In the dispute concerning the origin and use of the lymphatic vessels, the eagerness of the contending parties was perhaps more excusable. The discovery was extremely interesting to the practice of physic and surgery, and the emulation of two anatomists who disputed with each other the honour of the invention, would nat-

turally be in proportion to the importance of the subject.

Dr. Hunter, in his account of the controversy, observes, that when he began to give lectures the most commonly received opinion concerning the lymphatic veins was, that they were a continuation of lymphatic arteries; but that he, on the contrary, was led to consider them as a system of absorbing vessels, which begin from all the internal and external surfaces of the body.

It was at that time generally allowed that all the surfaces of the body are bibulous, or provided with absorbent vessels, by which mercury applied to the skin, collections of water in the breast, belly, or in the cellular membrane, &c. are occasionally taken up and conveyed into the circulation. That the lymphatic veins perform this office, he thought probable, from having observed that he had not been able to inject them like other veins, by filling the arterial system; and from having sometimes remarked in injecting, that they were immediately filled with wax, when the arteries burst, and the wax was effused into the cellular membrane. But what appeared to him to be the most striking argument in support of his opinion

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nion was the analogy between the lymphatics and lacteals. These two systems were to all appearance, the same in their coats, in their valves, in their manner of ramifying, in their passage through the lymphatic or conglobate glands, and in their termination in the thoracic duct. As they were perfectly similar, in every other respect, he supposed them to be so in their origin and use. The lacteals were known to begin from the surface of the intestines, and to be the absorbents of those parts. Hence he concluded, that there was no difference between them but in their names, and that the same vessels were called *lacteals* in the intestines, and lymphatics in the other parts of the body. This doctrine explained the use of valves in the lymphatics. In other veins, the fluid was supposed to move onward by an impetus received in the arterial system; but the case could not be the same in vessels that imbibe a fluid from a surface.—These ideas concerning the lymphatics were farther confirmed by the absorption and progress of the venereal poison.

Such were the opinions maintained by Dr. Hunter in his lectures in the year 1746.—Dr. Monro

Monro in his Inaugural Dissertation ||, printed in 1755, introduced several arguments to prove that the valvular lymphatic vessels, through the whole body, are a system of absorbent veins; and that they do not proceed from the branches of arteries as was the common opinion: and two years afterwards in a work on the lymphatics †, published at Berlin, he treats fully of their origin, structure, and use, and quotes many of the latest writers to prove that his opinions on this subject were new.

Neither Dr. Hunter nor Dr. Monro seem to have been aware that the main points for which they contended are to be found in an abridgement of anatomy §, published at Paris so early

|| *Dissertatio Inauguralis de Testibus et Semine in variis animalibus.*

† *De Venis Lymphaticis valvulosis et de earum imprimis origine.*

§ *L'Anatomic du Corps de l'homme en abrégé; par M. Noguez, Medecin du Roy, et Demonstrateur d'histoire naturelle au Jardin Royal, 8vo Paris. 2d edition, 1726.*—The first edition of this work, published in 1723, was little more than a translation of Keil's anatomy, but this second edition contains many observations peculiar to the author, and, among others, those which I have quoted relative to the lymphatics.

as the year 1726, by M. Noguez, a French anatomist. This work, which is at present but little known, contains several passages that have been overlooked by succeeding writers, but which clearly prove that the author was not unacquainted with the absorbing office of the lymphatic veins, and their analogy to the lacteals. These passages, however, had not escaped the notice of Mr. Henry Watson, who first mentioned them to me, and was so kind as to lend me the book.

In the eighth chapter of the third part of his work, M. Noguez, after having given a good account of the lacteals and their valves, and likewise of the thoracic duct, describes the lymphatics in the following terms: “ La structure
 “ des vaisseaux lymphatiques et la maniere de
 “ les demontrer sont les memes que dans les
 “ veines lactées... Les vaisseaux lymphatiques
 “ sont des vaisseaux tres petits; minces, trans-
 “ parens, qui renferment ordinairement une
 “ liqueur aqueuse qu’on appelle lymphé....
 “ on les trouve d’ordinaire à la surface des par-
 “ ties, sur tout du foye. Leur structure et
 “ leur substance ne different point des veines
 “ lactées. Ils ont beaucoup de valvules qui
 “ sont doubles et semi-lunaires, et qui sont d’un
 grand

“ grand usage pour faciliter le mouvement pro-
 “ gressif de la lymphe. Ruysch les a parfaite-
 “ ment bien decrites et démontrées. Il en naît
 “ de presque toutes les parties du corps, ou
 “ peut-être de toutes les parties : la chose est
 “ encore indecise. . . Pour les démontrer il faut
 “ lier la veine thoracique, la veine cave, ou
 “ quelqu’ autre gros tronc dans un animal vi-
 “ vant, ou tué depuis peu : on souffle ensuite
 “ dans les veines, ou dans les artères, ou dans
 “ les tuyaux excrétoires des viscères. . . Il y’a des
 “ glandes qu’on appelle *conglobées*, ou les vais-
 “ seaux lymphatiques aboutissent, et qui servent
 “ d’entrepôts*.” He allows the existence of
 lym-

* “ The structure of the lymphatic vessels, and the
 “ manner of demonstrating them are the same as in the
 “ lacteal veins. . . The lymphatic vessels are very minute
 “ vessels ; thin, transparent, and usually containing a
 “ watery liquor called lymph. . . They are commonly
 “ found on the surface of parts, particularly of the
 “ liver. In their structure and composition they are
 “ the same as the lacteal veins. They have a great
 “ number of valves which are double and semi-lunar,
 “ and which are of great utility to facilitate the pro-
 “ gressive motion of the lymph. Ruysch has described
 “ and demonstrated them perfectly well. They arise from
 “ almost all parts of the body, or perhaps from every
 “ part ; but this is as yet undetermined. . . To demon-
 “ strate

lymphatic arteries which exhale a subtle vapour or lymph, but he is careful to distinguish these from the *lymphatic veins*, which he considers as *absorbents*. “ Les premiers—says he—naissent
 “ des extremittez arterieles, comme dans l’oeil,
 “ à la peau : on les nomment arteres lymphatiques, qui peut-être ne sont autre chose que
 “ les conduits excretoires d’une lymphe tres
 “ subtile, ou de la matiere de la transpiration.
 “ Les seconds vaisseaux lymphatiques sont vein
 “ eux ; ils reportent la lymphe dans les vais
 “ seaux sanguins ou dans les veines ; il y’en a
 “ dans toutes les parties du corps ; ils repom
 “ pent la matiere lymphatique qui s’évacue par
 “ les premiers, on peut les nommer conduits
 “ absorbans*.”—There is certainly a great dif-

“ strate them, we must first tie the thoracic duct, the
 “ vena cava, or some other large trunk in a living ani
 “ mal, or one recently killed ; and then blow into the
 “ veins or the arteries, or the excretory ducts of the
 “ viscera.—There are glands called *conglobate*, where
 “ the lymphatic vessels enter, and which serve as
 “ reservoirs.”

* “ The first arise from the extremities of arteries as
 “ in the eye, and in the skin. These may be called
 “ lymphatic arteries, and are perhaps no other than the

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“ excre.

difference between this state of the discovery, and the progress that has since been made in it by injecting the lymphatic veins with mercury, tracing their origin and course in different parts of the body, explaining their structure and use, and applying the doctrine of absorption to pathology. For these improvements we are indebted to Dr. Hunter, Dr. Monro, Mr. Hewson, and other modern anatomists; but the passages I have just now quoted are sufficient to shew, that in a history of the absorbent system our obligations to M. Noguez ought not to be forgotten.

Speaking of dislocations* Dr. Hunter delivers what he supposed at the time to be a new doctrine, viz. that when a luxation is produced by violence in a healthy state, the capsular ligament is lacerated. But it has been since ob-

“ excretory ducts of a very subtil lymph, or of the
 “ matter of perspiration. The second lymphatic vessels
 “ are venous, and carry back the lymph into the blood
 “ vessels or veins. They are to be met with in all parts
 “ of the body. *They suck up the lymphatic fluid which*
 “ *is evacuated by the former, and may be called absorbing*
 “ *vessels.*”

* Med. Comm. ch. 7.

served†, that a similar opinion was adopted long ago by Petit ‖.

In the course of his work Dr. Hunter takes occasion to treat* of the insensibility of the dura mater, periosteum, tendons, and ligaments. On this subject he professes to have delivered nearly the same doctrine in his lectures in 1746, as was afterwards published by Haller in 1752. The just claim, however, of Haller to the thanks of the world for this discovery, as he made it fairly, and was the first who communicated it to the public, has never been disputed. It deserves to be remarked, however, that Dr. Hunter differs in some respects from Haller, who has gone too far, he thinks, in concluding that these parts have absolutely *no sense* of feeling; and who seems to have been led into an error in surgery, by supposing that wounds and punctures of tendons and ligaments, and penetrating wounds in the joints, are attended with as little danger as similar wounds in fleshy parts. Dr. Hunter very prudently cautions his readers against cutting into the cavity of a joint, unless there be very urgent reason for so dangerous a practice.

† Kirkland's Obs. on Fractures, &c. p. 48.

‡ Traité des Maladies des Os. tom. I. p. 46.

* Med. Comm. ch. 2.

What he says of absorption by veins is founded chiefly on experiments made and related by his brother, Mr. John Hunter, and which, in his opinion, prove that in the human body the red veins do not absorb.

With regard to the *hernia congenita* Dr. Hunter acknowledges that he first learned from Mr. Sharpe, in 1748, that cases of rupture sometimes occur, where the intestine is found in the same sac, and in contact with the *testis*. The truth of this he afterwards confirmed by his own observation, but till he read the account of the *hernia congenita* in Haller's *opuscula pathologica**, he had constantly accounted for this phenomenon by supposing that the hernial sac had been lacerated. He now engaged his brother to prosecute inquiries on this subject, and to this circumstance we are indebted for the
 “ Observations† on the state of the *testis* in the
 “ fœtus, .

* This work was published in 1754, but the account of the *hernia congenita* had appeared in a separate publication in 1749, and Haller had made the discovery so early as 1747.

† “ Nos quidem testes in abdomine fœtus habitare,
 “ serius in scrotum descendere vidimus, et aliquando
 “ peritonæum foramine patuisse, per quod testis exiret.
 “ Accu-

“ fœtus, and on the hernia congenita, by Mr.
 “ John Hunter,” which are published in the
 Medical Commentaries.

No man was ever more tenacious than Dr. Hunter of what he conceived to be his anatomical rights. This was particularly evinced in the year 1780, when his brother communicated to the Royal Society a discovery he had made twenty-five years before relative to the structure of the placenta, the communication between it and the uterus, and the vascularity of the spongy chorion.

At the next meeting of the Society, a letter was read in which Dr. Hunter put in his claim to the discovery in question. This letter was followed by a reply from Mr. John Hunter, and here† the dispute ended.

In 1762, when our present amiable queen became pregnant, Dr. Hunter was consulted; and

“ Accuratius hæc Johannes Hunter, Gulielmi frater,
 “ exposuit, addidit, ut debilis cellulosa tela cedat,
 “ tellem transmittat, peritonæum vero supra transitum
 “ confirmet. Hæc bonis iconibus exprimit.” Halleri
Biblioth. Anatom. tom. II. p. 363.

† These papers, though not published by the Society, are preserved in their archives.

two years afterwards || he had the honour to be appointed Physician Extraordinary to her Majesty. In courts, where interest too often prevails over merit, appointments of this sort are not always conferred on persons of the greatest abilities. But it is certain that Dr. Hunter owed his nomination to this important office solely to his own well-earned reputation, and his assiduity and uniform success in the discharge of it shewed how well he deserved it.

About this time his avocations were so numerous that he became desirous of lessening his fatigue, and having noticed the ingenuity and assiduous application of the late Mr. William Hewson, F. R. S. †, who was then one of his pupils,

|| 1764.

† Of the life of this ingenious anatomist no account had been printed, till my learned friend Dr. Hahn, professor of physic in the university of Leyden, prefixed some anecdotes of him to a Latin translation of his works lately published in that city, but which I have not yet seen. These anecdotes are contained in the following letter with which Mr. Hewson's widow favoured me, in reply to one I had addressed to her at the suggestion of our common friend Mr. Watson, F.R.S. This letter I transmitted to Dr. Hahn, who tells me he has given it entire in a Latin translation; and it affords so
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pupils, he engaged him first as an assistant and afterwards as a partner in his lectures. This
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affectionate and just a tribute to the memory of Mr. Hewson, that I am persuaded my readers will be pleased to see it preserved here in its original form.

“ S I R,

“ I should think myself bound to grant any request
“ introduced with Mr. Watson’s name ; but that which
“ you make in the letter I received yesterday needed
“ no such introduction. A tribute paid to the memory
“ of Mr. Hewson is highly gratifying to me, and I
“ can have no employment that will give me more satisfaction than that of assisting in any degree to the
“ spreading of his fame.

“ You say, you are not unacquainted with the general history of Mr. Hewson’s life, and you speak
“ of him in terms which shew you are not unacquainted with his character. Had you been among the
“ number of his friends, you would bear testimony to
“ his private virtues, which rendered him no less dear
“ to his family and associates, than his talents made
“ him respectable in the world.

“ Mr. Hewson was born at Hexham in Northumberland, on the 14th of November, O. S. 1739. He
“ received the rudiments of his education at a grammar school in that town, under the Rev. Mr. Brown.
“ His father was a surgeon and apothecary in the place,
“ and much respected in that neighbourhood. With
“ him

connexion continued till the year 1770, when some disputes happened, which terminated in a
sepa-

“ him Mr. Hewson acquired his first medical know-
“ ledge. Being ambitious to increase that knowledge,
“ he placed himself first under an eminent surgeon in
“ Newcastle (Mr. Lambert) and afterwards resided for
“ some time at London, Edinburgh, and Paris. His
“ subsequent acquirements are sufficient to prove, that
“ he visited those places with a true love of science and
“ desire of attaining eminence in his profession.

“ I became acquainted with him in the year 1768.
“ He was at that time in partnership with Dr. Hunter.
“ Some similarity in our dispositions created a mutual
“ esteem, and the equality of our situations made our
“ union desirable in point of prudence. I had five
“ months the start of him in age, no pretensions to
“ beauty, nor any splendid fortune; yet I believe he
“ was satisfied with the choice he made. We were
“ married July 10th 1770. I brought him two sons.
“ The elder was just three years old when Mr. Hewson
“ died, which was on the first of May 1774, and I was
“ delivered of a daughter on the ninth of August fol-
“ lowing. His last moments of recollection were em-
“ bittered by the idea of leaving me with three chil-
“ dren but scantily provided for. The trial of my
“ fortitude was different; the loss of affluence I did
“ not feel for myself, and I thought I could bring up
“ my children not to want it. However, by the death
“ of an aunt, who left me her fortune, I became re-
“ inflated

eparation. Mr. Hewson was succeeded in the
partnership

“ inflated in easy circumstances, and am enabled to
“ give a liberal education to my children, who I hope
“ will prove worthy of the stock from which they grew,
“ and do honour to the name of Hewson.

“ Mr. Hewson’s mother is still living at Hexham,
“ and has one daughter, the youngest and only remain-
“ ing child of eleven.

“ His father died in 1767; and having had so large
“ a family, it will be readily supposed he could not
“ give much to his son, so that Mr. Hewson’s advance-
“ ment in life was owing to his own industry.

“ A better son and husband, or a fonder father than
“ Mr. Hewson, never existed. He was honoured with
“ the friendship of many respectable persons now liv-
“ ing, and the late Sir John Pringle shewed him sin-
“ gular marks of regard.

“ Mr. Hewson’s manners were gentle and engaging;
“ his ambition was free from ostentation, his prudence
“ was without meanness, and he was more covetous of
“ fame than of fortune.

“ You will, I trust, readily forgive me, if I have
“ been more prolix than you desired. It would be no
“ easy matter for me to relate bare facts without some
“ comment upon such a subject.

“ I am, S I R,

Kensington, “ Your most obedient humble servant,
Aug. 30, 1782.

“ MARY HEWSON.”

To this letter I take the liberty to add, that the
writer of it, whose sentiments do her so much honour,

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is

partnership by Mr. Cruikshank, whose anatomical abilities are deservedly respected.

In 1767* Dr. Hunter was elected a fellow of the Royal Society, and the year following communicated to that learned body observations on the bones †, commonly supposed to be elephants bones, which have been found near the river Ohio in America.

Naturalists had entertained very different opinions concerning fossil ivory, and the large teeth and bones dug up in different parts of the world. When they were clearly ascertained to be parts of animals, (for at first this was doubted) a dispute arose to what animal they belonged. The more general opinion was, that they were the bones of the elephant; but this was liable to great objections. The bones were observed to be larger than those of the elephant, and it was thought strange that elephants should have been

is the lady to whom Dr. Franklin has addressed several of his letters on Philosophical subjects, and likewise his scheme for a new Alphabet and reformed mode of Spelling, published in the collection of his Political, Miscellaneous and Philosophical pieces.

* April 30.

† Philos. Transactions, vol. 58.

formerly

formerly so numerous in western countries where they are no longer natives, and in cold countries, Siberia particularly, where they cannot now live.

Of late years the same sort of tusks and teeth, with some other larger bones, have been found in considerable number near the banks of the Ohio in North America. The French academicians became possessed of some specimens of them, and having compared them with the bones of real elephants, and with those which had been brought to France from Siberia, determined with an appearance of truth on their side that they were elephants bones.

This part of natural knowledge appeared to Dr. Hunter to be very curious and interesting, inasmuch as it seemed to concur with many other phænomena, in proving, that in former times some astonishing change must have happened to this terraqueous globe; that the highest mountains, in most countries, now known, must have lain for many ages in the bottom of the sea; and that this earth must have been so changed with respect to climates, that countries, which are now intensely cold, must have been formerly

F 2 . inhabited

inhabited by animals that are now confined to the warm climates.

After examining a great number of these teeth and bones, and carefully reading what had been published on this subject by M. M. de Buffon and d'Aubenton*, Dr. Hunter was convinced that the supposed American elephant was an animal of another species which naturalists were unacquainted with. He imagined further that this *animal incognitum* would prove to be the supposed elephant of Siberia and other parts of Europe, and that the real elephant would be found to have been in all ages a native of Asia and Africa only. In the course of this inquiry having procured one of these fossil tusks to be cut through and polished, he discovered that true or genuine ivory is the production of two different animals, and not of the elephant alone.

This was not the only subject of natural history on which Dr. Hunter employed his pen; for in a subsequent volume† of the Philosophical Transactions, we find him offering his remarks on some bones found in the rock of Gibraltar,

* Histoire Natur. tom. xi. & Mem. de l'Acad. des Sciences, 1762.

† Vol. 60.

and which he proves to have belonged to some quadruped. In the same work* likewise he published an account of the Nyl-ghau, an Indian animal, not described before, and which, from its strength and swiftness, promised to be a useful acquisition to this country.

In 1768 || Dr. Hunter became a Fellow of the Society of Antiquaries, and the same year at the institution of a Royal Academy of Arts, he was appointed by his majesty to the office of Professor of Anatomy. This appointment opened a new field for his abilities, and he engaged in it as he did in every other pursuit of his life, with unabating zeal. He now adapted his anatomical knowledge to the objects of painting and sculpture, and the novelty and justness of his observations proved at once the readiness and extent of his genius.

In January 1781, he was unanimously elected to succeed the late Dr. John Fothergill as president of this society. He was one of those to whom we are indebted for its establishment, and our grateful acknowledgments are due to him for his zealous endeavours to promote the liberal views

* Phil. Transf. vol. 61.

|| Jan. 14.

of this institution, by rendering it a source of mutual improvement, and thus making it ultimately useful to the public.

As his name and talents were known and respected in every part of Europe, so the honours conferred on him were not limited to his own country. In 1780-the Royal Medical Society at Paris elected him one of their foreign associates; and in 1782 he received a similar mark of distinction from the Royal Academy of Sciences in that city.

We come now to the most splendid of Dr. Hunter's medical publications, the *Anatomy of the Human Gravid Uterus*. The appearance of this work, which had been begun so early as the year 1751, (at which time ten of the thirty-four plates it contains were completed) was retarded till the year 1775, only by the author's desire of sending it into the world with fewer imperfections. Something concerning the progress of this work, and of the zeal with which it was prosecuted, may be collected from different parts of his letter to professor Monro, senior, in the Supplement to his *Medical Commentaries*,
 “ On the 11th of February—says he—I was so
 “ fortunate as to meet with a Gravid Uterus,
 “ to which, from that time, all the hours have
 “ been

“ been dedicated which have been at my own
 “ disposal. I have been busy in injecting, dis-
 “ secting, preserving, and shewing it, and in
 “ planning and superintending drawings and
 “ plaister casts of it. I have already made five
 “ very capital drawings from this subject. They
 “ and some more, shall be engraved by the best
 “ masters, as soon as possible, and then the
 “ whole shall be published. My first and ori-
 “ ginal intention, you know, was to have pub-
 “ lished ten plates only; but thinking the work
 “ imperfect, I waited patiently for more oppor-
 “ tunities of adding supplemental figures. Six-
 “ teen plates were finished on this plan several
 “ years ago; but still I was dissatisfied with the
 “ work, as being incomplete; and in spite of
 “ the importunity of many friends, I kept it
 “ from the public.”

Opportunities of dissecting the Human Gravid
 Uterus occur but seldom. It was probably
 owing to this circumstance that this part of ana-
 tomy had been less successfully cultivated than
 some others. Few, or none, of the anatomists,
 had met with a sufficient number of subjects,
 either for investigating, or demonstrating the
 principal circumstances of Utero-gestation in the
 human species.

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In the course of near thirty years, by great diligence, and the assistance of many friends, Dr. Hunter procured in this metropolis so many opportunities of studying the Gravid Uterus, as to be enabled to exhibit, by figures, all the principal changes that occur in the nine months of pregnancy.

This great work is dedicated to the King. In his preface to it we find the author very candidly acknowledging that in most of the dissections he had been assisted by his brother, Mr. John Hunter, “ whose accuracy—he adds—in anatomical researches is so well known, that to omit this opportunity of thanking him for that assistance would be in some measure to disregard the future reputation of the work itself.” He likewise confesses his obligations to the ingenious artists who made the drawings and engravings, “ but particularly to Mr. Strange, not only for having by his hand secured a sort of immortality to two of the plates, but for having given his advice and assistance in every part with a steady and disinterested friendship.”

The plates are not all of them equally interesting or beautiful, but I believe their accuracy has never been disputed. The four first engrav-

engravings by Strange and Ravenet, and those of the Ovum in early pregnancy by Worlidge, are justly admired for their elegance.

In this work Dr. Hunter first delineated the Retroverted Uterus, and the *Membrana decidua reflexa*, or that part of the spongy chorion which is reflected over the foetus, and for the discovery of which we are indebted to him.

After the last plate was finished, he had an opportunity of procuring drawings to be made from a younger embryo than he had till then seen, and likewise from a very curious case of a conception in the Fallopian tube, which confirmed two opinions he had before entertained concerning the Gravid Uterus. It shewed, that the enlargement of the impregnated Uterus does not happen mechanically from the increasing bulk of its contents; and it proved, at the same time, that the spongy chorion, or *membrana decidua*, belongs to the Uterus, and not to the Ovum or that part of the conception which is brought from the Ovarium. These drawings he intended to have offered to the public in the way of a supplemental plate, or with the description of the anatomy of the Gravid Uterus, a work which he did not live to publish, but which he seems to have almost completely prepared for

the press. This description* was intended to be printed in quarto, as an illustration of his plates. The two works united would certainly convey as accurate an idea of the anatomy of the Gravid Uterus, as can be acquired without the actual dissection of pregnant women. This anatomical description of the Gravid Uterus was not the only work which Dr. Hunter had in contemplation to give to the public. He had long been employed in collecting and arranging

* Some idea may be formed of the plan of this intended work from the following view of its contents and their arrangement, written by the author himself:

“ Size of the Uterus at Nine Months.—Figure.—

“ Situation.—Ligaments, Tubes, and Ovaria.—

“ Thickness of the Uterus.—Blood-vessels.—Lymphatics and Nerves.—Muscular Fibres.—Os Uteri.—Contents of the Uterus.—Navel String.

“ —Placenta.—Membranes Amnios, Chorion and Decidua.—Allantois and Urachus.—Liquor Amnii.—Fœtus; its Situation, Size, Form, &c.—Of the Pregnant Uterus in the earlier Months.—How far back in Pregnancy my Observations go.—Substance of the Uterus softer, more vascular, and rather thicker.—The Conception then altogether in the Fundus.—State of the Cervix Uteri.—State of the Os Uteri.—Uterus not tight nor quite full.—Situation of the Ligaments of the Uterus.—Ovarium and Corpus Luteum.”

mate-

materials for a history of the various concretions that are formed in the human body. In this work he intended to comprehend not only urinary and biliary concretions, but likewise those which take place in the salivary glands, pancreas, prostate, &c. Of the urinary and biliary concretions he meant to treat at considerable length, because they are by much the most common; of the others, as being less frequent, he intended to treat more slightly.

He seems to have advanced no farther in the execution of this design, than to have nearly completed that part of it which relates to urinary and biliary concretions. Of these he describes the mechanical properties, as their specific gravity, colour, size, shape, &c. and their chymical properties discoverable by experiments. He considers likewise their mode of growth, and adds a short account of their pathology. It is probable that he meant to treat of the other concretions in the same way. This work was intended to be illustrated by engravings. The greater number of these were finished at the time of his death; and are executed with uncommon elegance.

Amongst Dr. Hunter's papers have likewise been found two introductory lectures, which are written out so fairly, and with such accuracy,

that he probably intended no farther correction of them before they should be given to the world. In these lectures Dr. Hunter traces the history of anatomy from the earliest to the present times, along with the general progress of science and the arts. He considers the great utility of anatomy in the practice of physic and surgery; gives the ancient divisions of the different substances composing the human body, which for a long time prevailed in anatomy; points out the most advantageous mode of cultivating this branch of natural knowledge; and concludes with explaining the particular plan of his own lectures.

Besides these manuscripts he has also left behind him a considerable number of cases of dissection; most of them relate to pregnant women, and they are written with tolerable accuracy.

The same year in which the tables of the Gravid Uterus made their appearance, Dr. Hunter communicated to the Royal Society, an Essay on the origin of the Venereal Disease. In this paper he attempted to prove, that this dreadful malady was not brought from America to Europe by the crew of Columbus, as had been commonly

monly supposed, although it made its first appearance about that period.

In order to support this opinion, Dr. Hunter pointed out several inaccuracies in Astruc's testimonies, which contradict his assertion that the venereal infection first made its appearance between the years 1494 and 1496. In particular he observed, that Fulgosius, one of the writers to whom Astruc appeals, positively says, that this disease made its appearance two years before Charles the Eighth's arrival in Italy, which would fix it to 1492. But the authority on which Dr. Hunter laid the greatest stress, was that of Peter Martyr*, a native of Italy, who went to Spain in 1487, and resided there till his death, which happened in 1525. His talents soon procured him the patronage of the court, and he was appointed one of the council for the direction of affairs in the West Indies. He was the intimate friend of Columbus, and besides other works was the author of a history of the Discovery of America. His letters, which were

* This writer must not be confounded with another of the same name, and likewise a native of Italy, who was professor of divinity at Oxford, and died at Zurich in 1562.

published after his death, are full of information about the New World, but no where does he take notice of the venereal disease being conveyed from thence, though he often speaks of that complaint as a new disease which had just made its appearance, and which he ascribes, agreeably to the philosophy of those times, to planetary influence. One of his letters, addressed to Arias Luritanus, professor of Greek at Salamanca, who was afflicted with this new disease, is dated in 1489, which was before Columbus even failed from Spain on his first voyage.

After this paper had been read to the Royal Society, Dr. Hunter, in a conversation with the late Dr. Musgrave, was convinced that the testimony on which he placed his chief dependence was of less weight than he had at first imagined, as many of Martyr's letters afford the most convincing proofs of their having been written a considerable time after the period of their dates. He therefore very properly laid aside his intention of giving his Essay to the public.

In the year 1777, Dr. Hunter joined with Mr. Watson in presenting to the Royal Society a short Account of the late Dr. Maty's Illness, and
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of the Appearances on Dissection*; and the year following he published his Reflections on the Section of the Symphysis Pubis. This Essay, which was first read by the author at one of the quarterly meetings of this Society, contains a great number of useful observations. By sending forth this work Dr. Hunter did not mean to raise a popular cry against this new practice, before it was well understood, for he thought that this would be unfair, and at the same time disrespectful to the ingenuity, and, no doubt, humane intentions, of Messieurs Sigault, Camper, and Le Roy, the authors of the operation. All that he wished for was to see it received with caution, and finally approved or rejected upon solid ground, and at as little expence to human nature as possible.

The merits of this invention have lately been more fully investigated by Dr. Osborn†, who has so clearly ascertained its inutility and danger that it will probably never be attempted in this country.

* Phil. Transf. vol. 67.

† An Essay on Laborious Parturition; in which the division of the Symphysis Pubis is particularly considered. 8vo. Lond. 1783.

We must now go back a little in the order of time to describe the origin and progress of Dr. Hunter's Museum, without some account of which the history of his life would be very incomplete.

When he began to practise midwifery, he was desirous of acquiring a fortune sufficient to place him in easy and independent circumstances. Before many years had elapsed he found himself in possession of a sum adequate to his wishes in this respect, and this he set apart as a resource of which he might avail himself whenever age or infirmities should oblige him to retire from business. I have heard him say, that he once took a considerable sum from this fund for the purposes of his museum, but that he did not feel himself perfectly at ease till he had restored it again. After he had obtained this competency, as his wealth continued to accumulate, he formed a laudable design of engaging in some scheme of public utility, and at first had it in contemplation to found an anatomical school in this metropolis. For this purpose, about the year 1765, during the administration of Mr. Grenville, he presented a memorial to that minister, in which he requested the grant of a piece of ground in the Mews for the site of an anatomical

mical theatre. Dr. Hunter undertook to expend seven thousand pounds on the building, and to endow a professorship of anatomy in perpetuity. This scheme did not meet with the reception it deserved.—In a conversation on this subject soon afterwards with the Earl of Shelburne, his lordship expressed a wish that the plan might be carried into execution by subscription, and very generously requested to have his name set down for a thousand guineas. Dr. Hunter's delicacy would not allow him to adopt this proposal. He chose rather to execute it at his own expence, and accordingly purchased a spot of ground in Great Windmill-street, where he erected a spacious house, to which he removed from Jermyn-street in 1770.

In this building, besides a handsome amphitheatre and other convenient apartments for his lectures and dissections, there was one magnificent room, fitted up with great elegance and propriety as a museum.

Of the magnitude and value of his anatomical collection, some idea may be formed when we consider the great length of years he employed in the making of anatomical preparations, and in the dissection of morbid bodies, added to the eagerness with which he procured

additions from the collections of Sandys*, Hewson†, Falconar‡, Blackall§, and others that were at different times offered for sale in this metropolis. His specimens of rare diseases were likewise frequently increased by presents from his medical friends and pupils, who, when any thing of this sort occurred to them, very justly thought they could not dispose of it more properly than by placing it in Dr. Hunter's museum. Speaking of an acquisition in this way, in one of his publications, he says, "I look
 " upon every thing of this kind which is given
 " to me, as a present to the public; and con-

* See page 14.

† See page 38.

‡ Magnus Falconar, surgeon, was born at Cheltenham in Gloucestershire, in Nov. 1751. He married a sister of Mr. Hewson, and succeeded him as a reader on anatomy in London. He died of a pulmonary consumption at Bristol, March 24, 1778, at the age of 24 years. He was a man of great application and dexterity, and a good speaker. The sale of his collection of anatomical preparations, which included those made by Mr. Hewson, produced upwards of nine hundred pounds.

§ Andrew Blackall, a young anatomist of great abilities, was a native of Ireland, and began to teach anatomy in London in 1778, soon after the death of Mr. Falconar. He died at Bristol Hot Wells, Aug. 14, 1780, of a pulmonary consumption in his 27th year.

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“sider myself as thereby called upon to serve
“the public with more diligence*.”

Before his removal to Windmill-street, he had confined his collection chiefly to specimens of human and comparative anatomy, and of diseases, but now he extended his views to fossils, and likewise to the promotion of polite literature and erudition.

In a short space of time he became possessed of “the most magnificent treasure of Greek
“and Latin books that has been accumulated
“by any person now living, since the days of
“Mead.” This is the character given of the doctor’s library by a learned and industrious writer †, who records an anecdote || which does honour to Dr. Hunter’s skill in bibliography.

* Letter to Dr. Vaughan, prefixed to the Reflections relative to the operation of cutting the Symphysis of the Ossa Pubis.

† Edward Harwood, D.D. in the preface to the *first edition* of his View of the various editions of the Greek and Roman classics. In this preface the author acknowledges his obligations to Dr. Hunter for having been allowed free access to consult any curious editions he wanted to inspect in his museum. In a subsequent edition this and several other passages where Dr. Hunter’s name occurs, are suppressed.

|| “I have only to regret that I did not happen to

A cabinet of ancient medals contributed likewise much to the richness of his museum. A description* of part of the coins, in this collection, struck by the Greek free cities, has lately been published by the doctor's learned friend

“ see, till after the article of Theocritus was printed
 “ off, a very curious *editio princeps* of this poet in Dr.
 “ Hunter’s museum, in which the doctor, upon care-
 “ fully collating two copies, as he imagined of the
 “ same edition, printed at Venice, Gr. fol. 1495, dis-
 “ covered a material difference not noticed by any bi-
 “ bliographer. The doctor ingeniously accounted for
 “ it, by supposing it to be printed from a mutilated
 “ manuscript, and that Aldus, after having disposed
 “ of a few copies of this imperfect edition, in the mean
 “ time meeting with a completer manuscript, supplied
 “ the deficiency of those copies which remained unfold,
 “ by printing two or three new sheets, and inserting
 “ them in the work. This curious circumstance rela-
 “ tive to this edition of Theocritus, by Aldus, appears
 “ to have been unknown to the ingenious editor of the
 “ late Oxford edition of Theocritus, and will undoubt-
 “ edly induce learned men to inspect this uncommon
 “ book.” This is another of the passages omitted by
 Dr. Harwood in a late edition of his work.

* Nummorum veterum populorum et urbium qui in museo Gulielmi Hunter asservantur descriptio figuris illustrata. Opera et studio Caroli Combe, S. R. et S. A. soc. 4to Londini 1783.

Mr.

Mr. Combe. In a classical dedication of this elegant volume to the queen, Dr. Hunter acknowledges his obligations to her majesty. In the preface some account is given of the progress of the collection, which has been brought together since the year 1770, with singular taste, and at the expence of upwards of twenty thousand pounds.

In 1781, the museum received a valuable addition of shells, corals, and other curious subjects of natural history which had been collected by our late worthy president Dr. Fothergill, who gave directions by his will that his collection should be appraised after his death, and that Dr. Hunter should have the refusal of it at five hundred pounds under the valuation. This was accordingly done, and Dr. Hunter purchased it for the sum of twelve hundred pounds.

The fame of this museum spread throughout Europe. Few foreigners, distinguished for their rank or learning, visited this metropolis without requesting to see it. Men of science of our own country always had easy access to it.—Considered in a collective point of view it is perhaps without a rival.

Dr. Hunter, at the head of his profession, honoured with the esteem of his sovereign, and
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in the possession of every thing that his reputation and wealth could confer, seemed now to have attained the summit of his wishes. But these sources of gratification were embittered by a disposition to the gout, which harrassed him frequently during the latter part of his life, notwithstanding his very abstemious manner of living.

About ten years before his death his health was so much impaired, that, fearing he might soon become unfit for the fatigues of his profession, he began to think of retiring to Scotland. With this view he requested his friends Dr. Cullen and Dr. Baillie to look out for a pleasant estate for him. A considerable one, and such as they thought would be agreeable to him, was offered for sale about that time in the neighbourhood of Alloa. A description of it was sent to him, and met with his approbation. The price was agreed on, and the bargain supposed to be concluded. But when the title deeds of the estate came to be examined by Dr. Hunter's counsel in London, they were found defective, and he was advised not to complete the purchase. After this he found the expences of his museum increase so fast, that he laid aside all thoughts of retiring from practice.

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This alteration in his plan did not tend to improve his health. In the course of a few years the returns of his gout became by degrees more frequent, sometimes affecting his limbs; and sometimes his stomach, but seldom remaining many hours in one part. Notwithstanding this valetudinary state, his ardour seemed to be unabated. In the last year of his life he was as eager to acquire new credit, and to secure the advantage of what he had before gained, as he could have been at the most enterprising part of his life. At length, on Saturday the 15th of March 1783, after having for several days experienced a return of wandering gout, he complained of great head-ache and nausea. In this state he went to bed, and for several days felt more pain than usual both in his stomach and limbs.

On the Thursday following he found himself so much recovered that he determined to give the introductory lecture to the operations of surgery. It was to no purpose that his friends urged to him the impropriety of such an attempt. He was determined to make the experiment, and accordingly delivered the lecture, but towards the conclusion his strength was so exhausted that he fainted away, and was obliged to be carried
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to bed by two servants. The following night and day his symptoms were such as indicated danger; and on Saturday morning Mr. Combe, who made him an early visit, was alarmed on being told by Dr. Hunter himself, that during the night he had certainly had a paralytic stroke. As neither his speech nor his pulse were affected, and he was able to raise himself in bed, Mr. Combe encouraged him to hope that he was mistaken. But the event proved the doctor's idea of his complaint to be but too well founded; for from that time till his death, which happened on Sunday the 30th of March, he voided no urine without the assistance of the catheter, which was occasionally introduced by his brother; and purgative medicines were administered repeatedly without procuring a passage by stool. These circumstances, and the absence of pain, seemed to shew that the intestines and urinary bladder had lost their sensibility and power of contraction; and it was reasonable to presume that a partial palsy had affected the nerves distributed to those parts.

The latter moments of his life exhibited an instance of philosophical calmness and fortitude that well deserves to be recorded. Turning to
his

his friend Mr. Combe, "If I had strength enough
 " to hold a pen—said he—I would write how
 " easy and pleasant a thing it is to die."

By his will, the use of his museum, under the direction of trustees, devolves to his nephew Matthew Baillie, B. A. and in case of his death to Mr. Cruikshank for the term of thirty* years, at the end of which period the whole collection is bequeathed to the University of Glasgow.

The sum of eight thousand pounds sterling is left as a fund for the support and augmentation of the collection.

The trustees are Dr. George Fordyce, Dr. David Pitcairne, and Mr. Charles Combe, to each of whom Dr. Hunter has bequeathed an annuity of twenty pounds for thirty years, that is, during the period in which they will be executing the purposes of the will.

Dr. Hunter has likewise bequeathed an annuity of one hundred pounds to his sister, Mrs. Baillie, during her life, and the sum of two thousand pounds to each of her two daughters.

* In his will Dr. Hunter had limited the term to twenty years, but in a codicil he afterwards extended it to thirty.

The residue of his estate and effects goes to his nephew.

On Saturday the 5th of April, his remains were interred in the rector's vault of St. James's church, Westminster.

Of the person of Dr. Hunter, it may be observed, that he was regularly shaped, but of a slender make, and rather below a middle stature.

There are several good portraits of him extant. One of these is in an unfinished painting* by Zoffany, who has represented him in the attitude of giving a lecture on the muscles at the Royal Academy, surrounded by a groupe of academicians. Of the engraved prints of him which have appeared, I give the preference to that executed by Collyer, from the portrait by Chamberlin, in the Council Chamber of the Royal Academy. It exhibits an accurate and striking resemblance of his features.

His manner of living was extremely simple and frugal, and the quantity of his food was

* This picture is in the possession of Mr. Baillie. The portrait of Dr. Hunter is the only part of it that is finished. Of the other figures, Mr. Zoffany had only traced the out-lines, when he embarked for the East Indies.

small as well as plain.—He was an early riser, and when business was over, was constantly engaged in his anatomical pursuits, or in his museum.

It has been said that he was restrained by mere parsimony, from indulging in the luxuries and amusements which captivate the generality of people who reside in this great city. But he seems to have had no relish for them, and contrived to live, in the midst of a crowd, master of himself, and of his own pursuits.—It may with truth be asserted, that he never suffered his œconomy to interfere in matters where the dignity of his character, or the interest of science, were concerned.

There was something very engaging in his manner and address, and he had such an appearance of attention to his patients when he was making his inquiries as could hardly fail to conciliate their confidence and esteem.—In consultation with his medical brethren, he delivered his opinions with diffidence and candour.—In familiar conversation he was chearful and unassuming.

All who knew him allow that he possessed an excellent understanding, great readiness of perception, a good memory, and a sound judgment.

To these intellectual powers he united uncommon assiduity and precision, so that he was admirably fitted for anatomical investigation.

As a teacher of anatomy he has been long and deservedly celebrated.—He was a good orator, and having a clear and accurate conception of what he taught, he knew how to place in distinct and intelligible points of view the most abstruse subjects of anatomy and physiology. Among other methods of explaining and illustrating his doctrines, he used frequently to introduce some apposite story or case that had occurred to him in his practice, and few men had acquired a more interesting fund of anecdotes of this kind, or related them in a more agreeable manner. He had the talent of infusing much of his ardour into his pupils, and if anatomical knowledge is more diffused in this country than formerly, we are indebted for this, in a great measure, to his exertions.

To him, likewise, we owe much of the moderation and caution which now prevail amongst discreet and intelligent practitioners of midwifery, in the use of instruments. “ I admit—said he in one of his latest publications †—

† Reflections relative to the operation of cutting the Symphysis of the Ossa Pubis.

“ that the forceps may sometimes be of service,
 “ and may save either the mother or child. I
 “ have sometimes used it with advantage, and,
 “ I believe, never materially hurt a mother or
 “ child with it, because I always used it with
 “ fear and circumspection. Yet, I am clearly
 “ of opinion, from all the information which I
 “ have been able to procure, that the forceps
 “ (midwifery instruments in general I fear) upon
 “ the whole, has done more harm than good.”
 In his lectures he had uniformly delivered the
 same excellent sentiments.

How much he contributed to the improvement of medical science in general may be collected from the concise view we have taken of his writings.

The munificence he displayed in the cause of science has likewise a claim to our applause.
 —Persons of an invidious turn of mind who seek to depreciate his merit in this respect, may perhaps endeavour to trace the motive by which he was actuated, and ascribe to vanity what deserves rather to be considered as a commendable love of fame. It is certain that Dr. Hunter sacrificed no part of his time or his fortune to voluptuousness, to idle pomp, or to any of the common objects of vanity that influence

ence the pursuits of mankind in general. He seems to have been animated with a desire of distinguishing himself in those things which are in their nature laudable ; and being a batchelor, and without views for establishing a family, he was at liberty to indulge his inclination. Let us, therefore, not withhold the praise that is due to him ; and at the same time let it be observed, that his temperance, his prudence, his persevering and eager pursuit of knowledge constitute an example which we may with advantage to ourselves, and to society, endeavour to imitate.

T H E E N D.